

What is Claimed is:

1. A microwave oven comprising:
  - an outer case forming a top and sides of a cabinet;
  - a base plate forming a bottom of the cabinet;
  - a front panel and a rear panel mounted in a front part and a rear part of the base plate for forming a front surface and a rear surface, respectively;
  - an inner case forming a cooking chamber on the base plate;
  - first and second transformer mounted at corners of one side of the base plate;
  - a fan above the second transformer for drawing external air;
  - a fan motor connected to the fan for providing a driving power to the fan;
  - a fan housing for protecting the fan;
  - an air duct between the first and second transformers, having one end in communication with the fan housing and the other end branched to first and second branch ducts; and
  - first and second magnetrons on an outside surface of the inner case, the first and second magnetrons connected to the first and second branch ducts, respectively.
2. The microwave oven as claimed in claim 1, wherein the base plate includes a front part having a plurality of inflow holes.
3. The microwave oven as claimed in claim 1, wherein the inner case includes;
  - a plurality of inlet holes for introduction of the air passed through the first and second branch ducts and the first and second magnetrons, and
  - a plurality of outlet holes for discharging the air introduced into the inner case

through the inlet holes.

4. The microwave oven as claimed in claim 3, wherein the outlet holes are connected to a plurality of discharging ducts for guiding flow of air discharged from the inner case.

5. The microwave oven as claimed in claim 4, wherein the rear panel has a plurality of first outlet holes connected to the discharging ducts for discharging air to an outside of the cabinet.

6. The microwave oven as claimed in claim 2, wherein the base plate is provided with a guide for uniform supply of external air introduced thereto through the inflow holes to the first and second transformers.

7. The microwave oven as claimed in claim 1, wherein the guide has a form of a square bar with one positioned between the inflow holes, and the other end positioned between the first and second transformers.

8. The microwave oven as claimed in claim 1, wherein the rear panel has a third outflow holes for discharging the air passed through the second transformer.

9. The microwave oven as claimed in claim 1, wherein the air duct is mounted spaced a distance apart from an inside wall of the outer case.

10. The microwave oven as claimed in claim 9, wherein the first and second branch

ducts of the air duct include sloped duct walls respectively such that each of the ducts becomes the narrower as it goes closer to a part connected to the first or second magnetron.

11. The microwave oven as claimed in claim 10, wherein the first branch duct is connected to a first duct for guiding air flow toward the fan motor, and the first magnetron is connected to the first duct.

12. The microwave oven as claimed in claim 10, wherein the rear panel has a second outflow hole for discharging the air cooled the fan motor through the first duct to an outside of the cabinet.

13. The microwave oven as claimed in claim 1, wherein the air duct includes a split guide between the first and second branch ducts for guiding the air introduced thereto through the fan.

14. The microwave oven as claimed in claim 13, wherein the split guide is formed by bending an inside wall of the air duct.

15. The microwave oven as claimed in claim 10, wherein the first branch duct is connected to a second duct for guiding flow of air to the rear panel, and the first magnetron is mounted in the second duct.

16. The microwave oven as claimed in claim 15, wherein the rear panel includes a second outflow hole connected to the second duct for discharging the air introduced thereto to

an outside of the cabinet.

17. The microwave oven as claimed in claim 16, wherein the second duct includes a first communication hole formed therein for supplying air for cooling the fan motor.

18. The microwave oven as claimed in claim 10, wherein the second branch duct is connected to a third duct for guiding flow of air to the rear panel, and the second magnetron is in the third duct.

19. The microwave oven as claimed in claim 18, wherein the rear panel includes a third outflow hole for discharging the air introduced thereto to an outside of the cabinet.

20. The microwave oven as claimed in claim 19, wherein the third duct includes a second communication hole for guiding air flow to the fan motor.